

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEYM E M O R A N D U M

TO: Stephen Berger, Executive Director
 FROM: Victor Strom
 DATE: July 18, 1986
 SUBJECT: ASBESTOS SURVEY AND ANALYSIS REPORT -
 WORLD TRADE CENTER COMPLEX
 REFERENCE: Memo; V. Strom to S. Berger, dated 7/2/86, same subject
 Memo; V. Strom to S. Berger, dated 7/11/86, same subject
 COPY TO: N. Budeiri, R. Fagin, M.D., P. Falvey, R. Linn, G. Tozzoli,
 R. Monti, M. Marchese, M. O'Brien, J. Vanacore

This is an update to the memo's referenced above. The following is the list of areas that were bulk sampled and air sampled at the World Trade Center during the period July 10 - July 16, 1986:

Bulk Sampling

| <u>Location</u> | <u>Results</u> | <u>Remarks</u> |
|---|----------------|---|
| Subgrade B1 Level (Mechanical Equipment Room) (Five World Trade Center) | Asbestos Found | Two samples out of fifty three taken were found to contain asbestos. The positive samples were obtained from fallout material and pipe insulation |
| Subgrade B1 Level (Four World Trade Center) (Computer Cooling Room). | No Asbestos | Samples were taken from sprayed on insulation material |
| Subgrade B1 Level (Four World Trade Center) (Swiss Bank, Mechanical Equipment Room) | No Asbestos | Samples were taken from sprayed on and pipe insulation material |
| Subgrade B1 Level (Four World Trade Center) (Mechanical Equipment Room) | No Asbestos | Samples were taken from pipe insulation material |
| Subgrade B2 Level (Dataport) (Five World Trade Center) | Asbestos Found | Three samples out of sixty one taken were found to contain asbestos. The positive samples were obtained from cementitious, trowled-on insulation present on the concrete slab ceiling |
| 5th Floor Core Areas (Two World Trade Center) | No Asbestos | Samples were taken from sprayed-on, and trowled-on insulation material |
| 6th Floor Maintenance Platforms (One World Trade Center) | Asbestos Found | Twenty one samples out of twenty three were found to contain asbestos. These samples were obtained from fluffy, sprayed-on insulation on ceiling and beams |

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| 1 Floor World Trade Center) | Asbestos Found | Five samples out of twenty eight collected were found to contain asbestos. The positive samples were collected from sprayed-on material on structural members |
| 2 Floor World Trade Center) | No Asbestos | Samples were collected from sprayed-on material on structural members. |
| 3 Floor World Trade Center) | No Asbestos | Samples were collected from sprayed-on material on structural members and decking. |
| 4th Floor World Trade Center) | Asbestos Found | Two samples out of twenty seven samples collected were found to contain asbestos. The positive samples were collected from sprayed on material on structural members. |
| 5th Floor World Trade Center) | No Asbestos | Samples were collected from sprayed-on material on structural members |
| 6th Floor World Trade Center) | No Asbestos | Samples were collected from sprayed-on material on structural members. |
| 7th Floor World Trade Center) | Asbestos Found | Two samples out of sixty five collected were found to contain asbestos. The positive samples were collected from cementitious and sprayed-on material on structural members. |
| 8th Floor World Trade Center) | Asbestos Found | One sample out of thirty two collected were found to contain asbestos. The positive sample was collected from sprayed on material on metal decking. |
| 9th Floor World Trade Center) | No Asbestos | Samples were collected from sprayed-on material on structural members. |

10 Samples

Location

Results

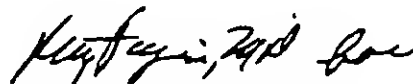
10th Floor Maintenance Platforms
One World Trade Center)

Three samples were taken and the results were well below the current Federal standards.

11th Floor Maintenance Platforms
Two World Trade Center)

Three samples were taken and the results were well below the current Federal standards.

The attached graphic shows the survey locations completed as of July 23, 1986.


Victor T. Stom, Director
Public Safety Department

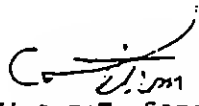
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| <u>Location</u> | <u>Results</u> | <u>Remarks</u> |
|--|----------------|---|
| 6th Floor Maintenance Platforms (Two World Trade Center) | Asbestos Found | All twenty two samples taken were found to contain asbestos. These samples were obtained from fluffy, sprayed-on insulation on ceiling and beams |
| 9th Floor (Mechanical Equipment Room) (Four World Trade Center) | No Asbestos | Samples were taken from pipe, and sprayed-on insulation material |
| 9th Floor (Mechanical Equipment Room) (Five World Trade Center) | No Asbestos | Samples were taken from pipe, and sprayed-on insulation material |
| 73rd Floor (Two World Trade Center) | No Asbestos | Samples were taken from sprayed-on and troweled-on insulation material |
| 74th Floor (Two World Trade Center) | Asbestos Found | Seventeen samples out of fifty two taken were found to contain asbestos. These samples were obtained from structural beams, and joists |
| 75th Floor MER (One World Trade Center) | Asbestos Found | Fifteen samples out of a total of eighty three taken were found to contain asbestos Three of these positive samples are from sprayed on insulation material six from pipe insulation material and six from fall out material |
| 108th Floor (One World Trade Center) (Mechanical Equipment Room) | No Asbestos | Samples were taken from structural steel members and pipe insulation material |

Air Samples

| <u>Location</u> | <u>Results</u> |
|--|--|
| 75th Floor (One World Trade Center) (Mechanical Equipment Room) | Eight samples were taken and the results were well below the current Federal standards |
| 108th Floor (Two World Trade Center) (Mechanical Equipment Room) | Eight samples were taken and the results were well below the current Federal standards |

The attached graphic shows the survey locations completed as of July 15, 1986.


Victor T. Scow, Director
Public Safety Department

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THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

M E M O R A N D U M

TO: Stephen Berger, Executive Director
FROM: Victor T. Strom
DATE: August 1, 1986
SUBJECT: ASBESTOS SURVEY AND ANALYSIS REPORT - WORLD TRADE CENTER

REFERENCE: Memo's; V. Strom to S. Berger, dated 7/2/86, 7/11/86, 7/18/86,
7/24/86, same subject

COPY TO: N. Budeiri, R. Fagin, M.D., P. Falvey, R. Linn, G. Tozzoli,
R. Monci, M. Marchese, M. O'Brien, J. Vanacore

This is an update to the memo's referenced above. The following is the list of areas that were bulk sampled and air sampled at the World Trade Center during the period July 24 - July 30, 1986:

Bulk Sampling

| <u>Location</u> | <u>Results</u> | <u>Remarks</u> |
|---|----------------|--|
| Elevator pits 1 and 2 (Two World Trade Center) | No asbestos | Samples were collected from column insulation and material fallout. |
| Elevator pits 3 and 4 (Two World Trade Center) | No asbestos | Samples were collected from column insulation. |
| Elevator pit 5 (Two World Trade Center) | No asbestos | Samples were collected from sprayed-on insulation on structural members. |
| Elevator pits 6 and 7 (Two World Trade Center) | No asbestos | Samples were collected from cementitious insulation on structural members. |
| Elevator pits 16 and 17 (Two World Trade Center) | No asbestos | Samples were collected from cementitious insulation on structural members. |
| Elevator pits 18 and 19 (Two World Trade Center) | No asbestos | Samples were collected from sprayed-on and cementitious insulation on structural members. |
| Elevator pits 20 and 21 (Two World Trade Center) | No asbestos | Samples were collected from cementitious insulation on structural members. |
| Elevator pits 24 and 25 (Two World Trade Center) | Asbestos found | Two out of three samples collected were found to contain asbestos. The positive samples were collected from sprayed-on column insulation and material fallout. |
| Elevator pit 27 (Two World Trade Center) | No asbestos | Samples were collected from cementitious insulation on structural members and fallout. |
| Elevator pits 28 and 29 (Two World Trade Center) | Asbestos found | Two out of three samples collected were found to contain asbestos. The positive samples were collected from sprayed-on insulation on the column. |

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| Elevator pits 30 and 31 (Two World Trade Center) | Asbestos found | Four out of four samples collected were found to contain asbestos. The positive samples were collected from sprayed-on and cementitious insulation, and fallout material. |
| Elevator pit 32 (Two World Trade Center) | Asbestos found | One out of one sample collected was found to contain asbestos. The positive sample was collected from fallout material. |
| Elevator pit 33 (Two World Trade Center) | Asbestos found | One out of one sample collected was found to contain asbestos. The positive sample was collected from fallout material. |
| Elevator pits 34 and 35B (Two World Trade Center) | Asbestos found | One out of three samples collected were found to contain asbestos. The positive sample was collected from sprayed-on column insulation. |
| Elevator pit 36 (Two World Trade Center) | Asbestos found | One out of three samples collected were found to contain asbestos. The positive sample was collected from sprayed-on column insulation. |
| Elevator pits 37 and 38B (Two World Trade Center) | Asbestos found | Three out of three samples collected were found to contain asbestos. The positive samples were collected from sprayed-on and cementitious column insulation and fallout material. |
| Elevator pits 39 and 40B (Two World Trade Center) | Asbestos found | Two out of two samples collected were found to contain asbestos. The positive samples were collected from sprayed-on column insulation. |
| Elevator pit 41B (Two World Trade Center) | Asbestos found | One out of three samples collected were found to contain asbestos. The positive sample was collected from sprayed-on column insulation. |
| Elevator pit 42B (Two World Trade Center) | Asbestos found | Two out of three samples collected were found to contain asbestos. The positive samples were collected from sprayed-on column insulation and fallout material. |
| Elevator pits 43 and 44 (Two World Trade Center) | Asbestos found | Two out of three samples collected were found to contain asbestos. The positive samples were collected from sprayed-on column insulation and fallout. |

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|--|----------------|---|
| 34th Floor (One World Trade Center) | Asbestos found | Seven out of thirteen samples were collected were found to contain asbestos. The positive samples were collected from sprayed-on and cementitious beam insulation. |
| 40th Floor (One World Trade Center) | Asbestos found | Twenty six samples out of fifty one collected were found to contain asbestos. The positive samples were collected from sprayed-on and cementitious beam insulation. |
| 45th Floor (One World Trade Center) | Asbestos found | One sample out of twenty two collected was found to contain asbestos. The positive sample was collected from sprayed-on beam insulation. |
| 46th Floor (One World Trade Center) | Asbestos found | One sample out of nineteen collected was found to contain asbestos. The positive sample was collected from sprayed-on beam insulation. |
| 47th Floor (One World Trade Center) | No asbestos | Samples were collected from sprayed-on cementitious insulation on structural members. |
| 1st Floor (One World Trade Center) | No asbestos | Samples were collected from sprayed-on and cementitious beam insulation. |
| 54th Floor (One World Trade Center) | No asbestos | Samples were collected from sprayed-on and cementitious insulation on structural members. |
| 61st Floor (One World Center) | Asbestos found | One sample out of twenty collected was found to contain asbestos. The positive sample was collected from sprayed-on joist insulation. |
| 63rd Floor (One World Trade Center) | Asbestos found | One sample out of twenty collected was found to contain asbestos. The positive sample was collected from cementitious beam insulation. |
| 65th Floor (One World Trade Center) | Asbestos found | One sample out of twenty collected was found to contain asbestos. The positive sample was collected from cementitious beam insulation. |
| 68th Floor (One World Trade Center) | No asbestos | Samples were collected from sprayed-on and cementitious insulation on structural members. |
| 9th Floor (One World Trade Center) | No asbestos | Samples were collected from sprayed-on and cementitious insulation on structural members. |